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VII. "On the Formation and some of the Properties of Cymidine, the Organic Base of the Cymol Series." By the Rev. JOHN BARLOW, F.R.S., Sec. R. Inst. Received June 14, 1855.

The object of this memoir is to detail the process by which an organic base, provisionally named *Cymidine*, was obtained from the hydrocarbon, cymol, and to describe some of its properties, and certain phenomena attending its production.

The substitution-product, nitrocymol, was procured by acting on cymol by strong nitric acid, both liquids being kept at the temperature $-17\frac{2}{3}^{\circ}$ Cent. (0° Fahr.). From nitrocymol, cymidine was obtained by Béchamp's modification of Zinin's process, and results of analyses, made by combustion of the platinum salt, and likewise by a silver determination of the hydrochlorate, were found to coincide with the formula $C_{20}H_{15}N$. In the formation of cymidine a neutral oil occurred, having the same boiling-point with cymol. From this hydrocarbon a substitution compound was derived, apparently isomeric with, but possessing a less specific gravity than nitrocymol. This nitro-compound was also subjected to the process of reduction already described, and a basic substance was formed from it, which was identified by a platinum determination with cymidine. Some qualitative experiments, made with cymidine, were also described, and the memoir concluded with the following synoptical table of the homologues of the benzol series.

| Hydrocarbons. | Nitro-substances. | Bases. |
|----------------------|-------------------------------|--------------------------|
| Benzol $C_{12}H_6$ | Nitrobenzol $C_{12}H_5NO_4$ | Aniline $C_{12}H_7N$ |
| Toluol $C_{14}H_8$ | Nitrotoluol $C_{14}H_7NO_4$ | Toluidine $C_{14}H_9N$ |
| Xylol $C_{16}H_{10}$ | Nitroxylol $C_{16}H_9NO_4$ | Xylidine $C_{16}H_{11}N$ |
| Cumol $C_{18}H_{12}$ | Nitrocumol $C_{18}H_{11}NO_4$ | Cumidine $C_{18}H_{13}N$ |
| Cymol $C_{20}H_{14}$ | Nitrocymol $C_{20}H_{13}NO_4$ | Cymidine $C_{20}H_{15}N$ |